

**1.4.9 Average Carbon Dioxide Emissions from a Generic Quad in the Buildings Sector with Stock Fuel Mix and Projected Fuel Mix of New Marginal Utility Capacity and Site Energy Consumption (Million Metric Tons) (1)**

	Stock			Projected Fuel Mix of New Marginal Utility Capacity and Site Consumption											
	2006			2010			2020			2030					
	Resid.	Comm.	Bldgs.	Resid.	Comm.	Bldgs.	Resid.	Comm.	Bldgs.	Resid.	Comm.	Bldgs.			
Electricity (2)	41.59	46.48	43.85	29.52	40.01	33.52	37.20	47.26	43.36	56.59	55.35	55.82			
Petroleum	4.15	2.75	3.51	3.31	0.55	2.26	2.26	0.21	1.00	1.41	0.17	0.64			
Natural Gas	11.47	8.65	10.17	16.51	7.42	13.04	16.48	7.10	10.73	10.24	6.46	7.88			
Renew. En. (3)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
Coal	0.04	0.45	0.23	0.04	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00			
Total	57.25	58.34	57.75	49.39	47.98	48.85	55.93	54.58	55.10	68.24	61.98	64.34			

Note(s): 1) This table provides estimates of the carbon emissions resulting from consumption of a generic quad in the buildings sector, at current and projected fuel shares. Projected increases in site energy will be primarily met by electricity and natural gas. Projected new marginal emissions will result from natural gas- and coal-fired power plants. Electricity imports from utility consumption were not included since this energy was produced outside of the U.S. "Average" means the weighted average of different fuels (e.g., petroleum is the average of residual and distillate fuel oils, LPG, kerosene, and motor gasoline). The combustion of fossil fuels produces carbon in the form of carbon dioxide and carbon monoxide; however, carbon monoxide emissions oxidize in a relatively short time to form carbon dioxide. 2) Includes renewables. 3) Emissions exclude wood since it is assumed that the carbon released from combustion is reabsorbed in a future carbon cycle.

Source(s): EIA, Annual Energy Outlook 2008, Mar. 2008, Table A2, p. 117-119 and Table A17, p. 143 for energy consumption and Table A18, p. 144 for carbon emissions; and EIA, Assumptions to the AEO 2008, June 2008, Table 2, p. 9.